

Medicine

Books and Journals from Cambridge University Press

The Cambridge Medicine programme focuses its book publishing in a defined set of core clinical areas with our great strength in the clinical brain sciences. Other specialties of significant focus include reproductive medicine/obstetrics and gynaecology, anaesthesia and critical care, emergency medicine and pathology.

Our journals programme covers a broad spectrum of medical disciplines including emergency and disaster medicine, epidemiology and infectious diseases, biomedical science, genetics, nutrition, mental health and psychiatry, and neuroscience.

We partner with many learned societies including The Society for Healthcare Epidemiology of America, and the Neuroscience Education Institute, and the Royal College of Obstetricians and Gynaecologists.

For further details visit:

cambridge.org/core-medicine

Cambridge
Core



CAMBRIDGE
UNIVERSITY PRESS

Parasitology

Back volumes. Vols. 1–71: Inquiries should be addressed to Wm. Dawson & Sons Ltd, Cannon House, Folkestone, Kent. Vols. 72 onwards: quotations for parts still in print may be obtained from Cambridge or the American Branch of Cambridge University Press.

Copying. This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per-copy fee of \$16.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0031–1820/2017 \$16.00.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

ISI Tear Sheet Service. 3501 Market Street, Philadelphia, Pennsylvania 19104, USA, is authorized to supply single copies of separate articles for private use only.

For all other use, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

Claims for missing issues can only be considered if made immediately after receipt of the subsequent issue.

Advertising. Details of advertising in *Parasitology* may be obtained from the publisher.

Online submission. Authors are encouraged to submit their manuscripts online. Go to <http://mc.manuscriptcentral.com/par/> to open an author's account for *Parasitology*. Manuscript Central is helping to improve the speed of the publication process for the journal.

Front Cover illustration: Role of actin in sexual development in *Eimeria maxima*. From Frolich and Wallach, Vol. 142 (7) pp. 855–864.

© Cambridge University Press 2017

University Printing House, Cambridge CB2 8BS, United Kingdom
1 Liberty Plaza, Floor 20, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
C/ Orense, 4, Planta 13 28020 Madrid, Spain
Lower Ground Floor, Nautica Building, The Water Club, Beach Road,
Granger Bay, 8005 Cape Town, South Africa

Printed in the UK by Bell & Bain

PARASITOLOGY

CONTENTS

RESEARCH ARTICLES

The high resolution melting analysis (HRM) as a molecular tool for monitoring parasites of the wildlife

Laurent Héritier, Olivier Verneau, Gregory Breuil and Anne-Leila Meistertzheim 563

Characterization of cyclin-dependent kinases and Cdc2/Cdc28 kinase subunits in *Trichomonas vaginalis*

Erick Amador, Karla López-Pacheco, Nataly Morales, Roberto Coria and Imelda López-Villaseñor 571

A novel assay for the detection of anthelmintic activity mediated by cuticular damage to nematodes: validation on *Caenorhabditis elegans* exposed to cysteine proteinases

A. M. Phiri, D. I. De Pomerai, D. J. Buttle and J. M. Behnke 583

Evolution of host range in the follicle mite *Demodex kutzeri*

Michael F. Palopoli, Van Tra, Kassey Matoin and Phuong D. Mac 594

Genetic divergence of human pathogens *Nanophyetus* spp. (Trematoda: Troglotrematidae) on the opposite sides of the Pacific Rim

A. N. Voronova, G. N. Chelomina, V. V. Besprozvannykh and V. V. Tkach 601

Detection and molecular identification of *Hepatozoon canis* and *Babesia vogeli* from domestic dogs in Palestine

Kifaya Azmi, Amer Al-Jawabreh, Abedelmajeed Nasereddin, Ahmad Abdelkader, Taher Zaid, Suheir Ereقات, Samer S. Sawalha, Gad Baneth and Ziad Abdeen 613

High rates of infection by blood parasites during the nestling phase in UK Columbids with notes on ecological associations

Jenny C. Dunn, Jennifer E. Stockdale, Emma L. Bradford, Alexandra Mccubbin, Antony J. Morris, Philip V. Grice, Simon J. Goodman and Keith C. Hamer 622

Haemosporida prevalence and diversity are similar in endangered wild whooping cranes (*Grus americana*) and sympatric sandhill cranes (*Grus canadensis*)

Miranda R. Bertram, Gabriel L. Hamer, Barry K. Hartup, Karen F. Snowden, Matthew C. Medeiros and Sarah A. Hamer 629

Molecular cloning, characterization and antigenicity of *Babesia* sp. BQ1 (Lintan) (*Babesia* cf. *motasi*) apical membrane antigen-1 (AMA-1)

Qingli Niu, Zhijie Liu, Jifei Yang, Guiquan Guan, Yuping Pan, Jianxun Luo and Hong Yin 641

***Hepatozoon silvestris* sp. nov.: morphological and molecular characterization of a new species of *Hepatozoon* (Adeleorina: Hepatozoidae) from the European wild cat (*Felis silvestris silvestris*)**

Adnan Hodžić, Amer Alić, Senad Prašović, Domenico Otranto, Gad Baneth and Georg Gerhard Duscher 650

Two's a crowd? Crowding effect in a parasitic castrator drives differences in reproductive resource allocation in single vs double infections

Caitlin R. Fong, Nancy A. Moron and Armand M. Kuris 662

Epidemiology of soil-transmitted helminthiasis-related mortality in Brazil

Francisco R. Martins-Melo, Alberto N. Ramos Jr, Carlos H. Alencar, Mauricélia S. Lima and Jorg Heukelbach 669

The diversity and evolution of nematodes (Pharyngodonidae) infecting New Zealand lizards

Sarah Mockett, Trent Bell, Robert Poulin and Fátima Jorge 680

The effects of seasonality on host–bat fly ecological networks in a temperate mountain cave

Karina D. Rivera-García, César A. Sandoval-Ruiz, Romeo A. Saldaña-Vázquez and Jorge E. Schondube 692

Do blood parasites infect Magellanic penguins (*Spheniscus magellanicus*) in the wild? Prospective investigation and climatogeographic considerations

Ralph Eric Thijl Vanstreels, Marcela Uhart, Virginia Rago, Renata Hurtado, Sabrina Epiphanyo and José Luiz Catão-Dias 698